BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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Order Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of Distribution Resources Plans Pursuant to Public Utilities Code Section 769.	Rulemaking No. 14-08-013 (Filed August 14, 2014)

REPLY COMMENTS ON THE ORDER INSTITUTING RULEMAKING OF THE INTERSTATE RENEWABLE ENERGY COUNCIL, INC.

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I. Introduction

On September 5, 2014, Interstate Renewable Energy Council, Inc. (IREC) submitted opening comments in response to the Order Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of Distribution Resources Plans Pursuant to Public Utilities Code Section 769 (OIR) in the instant docket, Rulemaking (R.) 14-08-013. In addition, at the California Public Utilities Commission (Commission) workshop on September 17, 2014, IREC provided thoughts on what the investor-owned utilities (IOUs) should focus on through the development of their Distribution Resource Plans (DRPs). In our opening comments and our presentation, IREC expressed our vision for a new utility distribution planning paradigm in which the utility is indifferent both to the technology used (traditional wires solutions versus non-wires-based solutions, such as distributed energy resources (DER)) as well as the ownership of that technology (utility versus non-utility). Within this framework, the utility would have the discretion to choose the most cost-effective distribution system investments that best meet all of the various public policy goals identified by the Commission. Our hope is that the DRPs developed in this docket will be a first step toward this future paradigm. In particular, IREC suggested that four areas will be especially important to ensuring the success of the DRPs: (1) reconsideration of the interconnection cost-allocation process; (2) procurement mechanisms that encourage DER in optimal locations; (3) transparency of grid and customer data; and, (4) tariffs and market conditions that allow for the appropriate transfer of benefits and costs.

In these reply comments, instead of responding to other parties' opening comments individually, we attempt to draw out common points that seemed to emerge from various commenters. While parties pointed to a number of issues that will likely need to be addressed in order to achieve a transformation of the distribution planning process in California, we try here

to focus on the near-term need for the Commission to issue guidance regarding the DRPs that would enable the State to meet the July 1, 2015 statutory deadline. IREC views the development of the DRPs as an iterative process, and we anticipate that the IOUs' incorporation of DER into their distribution planning will become more thorough and effective over time.

II. The Commission Should Focus on Providing Clear Guidance to the IOUs as They Develop Their First DRPs.

In the OIR, the Commission stated that this rulemaking will consider "an appropriate vision or set of principles to guide the IOUs' development of their DRP proposals."[1] IREC agrees that this should be the Commission's immediate priority. While the OIR and the *More than Smart* paper raised a number of important questions to help inform the Commission's thinking, IREC suggests that the Commission may need focus on providing guidance on initial DRP development in the near term in order to meet the statutory deadline and then it could establish subsequent phases to tackle farther reaching questions. As the Commission notes, the goal of the DRPs is "to begin the process of moving IOUs towards a more full integration of DERs into their distribution system planning, operations and investment."[2] With its initial guidance in this proceeding, the Commission is only just starting this process.

Under the Public Utilities Code Section 769, the DRPs must "identify optimal locations for the deployment of distributed resources," and must contain the following elements:

- Evaluate locational benefits and costs of distributed resources located on the distribution system," pursuant to certain criteria. § 769(b)(1).

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1 OIR at 3.

2 *Id.* at 4.

- Propose or identify "standard tariffs, contracts, or other mechanisms for the deployment of cost-effective distributed resources that satisfy distribution planning objective." § 769(b)(2).
- Propose "cost-effective methods of effectively coordinating existing commission-approved programs, incentives, and tariffs to maximize the location benefits and minimize the incremental costs of distributed resources." § 769(b)(3).
- Identify "any additional spending necessary to integrate cost-effective distributed resources into distribution planning consistent with the goal of yielding net benefits to ratepayers." § 769(b)(4).
- Identify "barriers to the deployment of distributed resources, including, but limited to, safety standards related to technology or operation of the distribution circuit in a manner that ensures reliable service." § 769(b)(5).

IREC recommends that the Commission's first decision in this docket should focus on providing guidance to the utilities that ties back to these statutory elements. Once the utilities have this guidance and have begun preparing their initial DRPs, the Commission can then begin to address some of the other policy changes necessary to realize a fully integrated planning process. With this in mind, and taking into account the responses of other parties in their opening comments on the OIR, we suggest the Commission provide the following guidance:

1. Explicitly articulate the goals for the DRPs and identify consistent, statewide metrics to measure their success.
2. Require the IOUs to incorporate a baseline analysis of their current system and processes in order to evaluate what changes are needed for DER integration.

3. Require the IOUs to incorporate the expected adoption of DER by customers into their grid modeling and forecasts going forward, and include those forecasts in their DRPs.
4. Articulate the criteria for "optimal locations" for DER so the IOUs can incorporate them into their DRPs.
5. Require the IOUs to identify new procurement programs and other tariffs, and/or changes to existing programs and tariffs, to encourage DER in optimal locations.
6. Require the DRPs to incorporate short-term (1-5 years) and long-term (10-20 year) components.

As we explain in Section III, IREC also suggests that the Commission develop a consistent benefit-cost framework to guide the modification and development of procurement programs and other policies. These programs will necessarily need to incorporate agreed-upon benefits and cost of DER into their program design in order to incentivize the "optimal location" of DER where those benefits are maximized and costs minimized. In addition, a benefit-cost framework would inform the IOUs recovery of costs of investments proposed in the DRPs. As indicated in Section III, IREC believes the Commission could begin to pursue this effort while the IOUs are developing the DRPs and continue concurrent with their evaluation of the DRPs.

A. The Commission Should Explicitly Articulate the Goals for the DRPs and Identify Consistent, Statewide Metrics to Measure the Success of the DRPs.

While Section 769 lists the components of the DRPs, it does not address the motivations for more effectively and cost-efficiently integrating DER into distribution system planning. IREC believes it is important for the Commission to draw out these goals and make them explicit in order to make clear what the utilities should strive to accomplish in their DRPs. Understanding clearly what the DRPs are intended to achieve should allow the IOUs to design plans that best

meet and balance these various overarching goals. For example, the scope of areas defined as "optimal" for DER may change depending upon the variety and amount of DER the utilities are aiming to integrate. With clearly defined goals for the types and amount of DER to integrate, the utilities may frame their planning process more precisely. In addition, these goals can provide a framework for assessing the success of the implementation of the DRPs.

In our opening comments, IREC suggested the following goals:[3]

- Renewable energy procurement, including the procurement of distributed renewable energy;
- Reduction of energy usage through energy efficiency, demand-side management, and demand response;
- Customer satisfaction and engagement;
- Safety;
- Reliability;
- Resiliency; and,
- Greenhouse gas emission reduction.

Several parties echoed some or all of these goals, in particular in their responses to Questions 1, 11 and 12.[4] IREC urges the Commission to consider this input in setting forth its own guidance framework.

Several parties also sought specific performance metrics to evaluate the success of the DRPs. As Pacific Gas and Electric Company (PG&E) stated, the "metrics must be widely

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[3] IREC Comments at 16-17.

[4] *See, e.g.* EDF Comments at 2-4; NRDC Comments at 2-3; Vote Solar Comments at 1-3; *see also* CAISO Comments at 2-9 (indicating the need for a vision for an end-state, potentially including customer adoption of DER, more microgrids and self-optimizing systems, etc.)

accepted and unbiased measures of important aspects of overall system performance on cost, reliability, safety and environmental impacts."[5] IREC agrees. We further suggest that the metrics be tied directly to the goals for the DRPs, identified by the Commission, as well as the statutory elements required in the plans. Some of these metrics, such as those associated with customer satisfaction, reliability, and safety, already exist; the Commission may have to develop others to assess the DRPs adequately. IREC notes that these metrics could also be used in advance of the DRPs deployment should the Commission choose to pursue scenario-based testing, as discussed by parties in response to Question 8 and in the *More Than Smart* paper.

B. The Commission Should Require the IOUs to Incorporate a Baseline Analysis of Their Current System and Processes in Order to Evaluate What Changes are Needed for DER Integration.

In their comments, the IOUs emphasized the need to understand their existing distribution planning processes, and the status and capabilities of their grids today, before considering changes.[6] IREC agrees, and we believe this baseline analysis should be part of the initial DRPs. As part of this analysis, IREC suggests that the IOUs identify barriers to the integration of DER today pursuant to Section 769(b)(5), including technical barriers, market barriers (e.g., lack of method for compensating for ancillary services, lack of process for determining resource adequacy for DER), process barriers (e.g., problems within the interconnection process), and any other relevant barriers.

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5 PG&E Comments at 6.

6 *Id.* at 2; SCE Comments at 2-3; *see also* Clean Coalition 6-7 (noting need to start with baseline before identifying additional DER capacity needs to inform optimal portfolio).

C. The Commission Should Require the IOUs to Incorporate the Expected Adoption of DER by Customers into Their Grid Modeling and Forecasts Going Forward, and Such Forecasts Should Be Part of the DRPs.

During the IOUs' presentations at the September 17 workshop, each noted that they share an interest in being able to improve their modeling of the behavior and needs of their grids going forward. Such improvement should allow the IOUs to predict and invest more appropriately today. IREC believes that the Commission should require such modeling and forecasting in the DRPs, and recognize that the utilities may need to make additional software and other investments in order to do so. Such investments would be addressed in future utility general rate cases (GRCs) and could be informed by the benefit-cost framework discussed in more detail in Section III.

In particular, IREC believes that it is critical for the IOUs to incorporate customer adoption of DER into their modeling and forecasting. These models and forecasts will inform the identification of optimal grid locations going forward as well as the identification of more traditional investments (e.g., wires-based system upgrades) necessary to facilitate DER integration. Therefore it is essential for the DRPs to reflect the reality that customers will increasingly choose to manage their energy usage through DER. As the panelist from Solar City stated during the September 17 workshop, the IOUs should view DER as an "inherent characteristic" of customers going forward.[7] IREC agrees.

This may reflect a departure from the IOUs' current forecasting practices, but IREC believes it is an important one for the Commission to require. We were pleased to see that at least one of the IOUs, PG&E, already expressly acknowledged that "IOU distribution planning and operations should be responsive to customer preferences and choices of preferred customer-

[7] *See also* Solar City Comments at 8 (noting that small residential and commercial DER should be viewed as "load modification" rather than generation).

owned or operated DERs."[8] Incorporating DER into grid forecasting is an important component of such responsiveness.

D. The Commission Should Articulate Its Criteria for "Optimal Locations" for DER So the IOUs Can Incorporate Them into Their DRPs.

The identification of "optimal locations" is the core component of Section 769, however, as the Commission is aware, "optimal locations" is not defined. In the OIR, the Commission recognized the need to provide some detail on what constitutes an "optimal location" and asked parties for input on this issue in Questions 3 and 4. Generally parties coalesced around two ways to define "optimal locations": (1) low-cost areas, that is, areas that do not require major upgrades for DER development and otherwise have the least negative impact on the grid; and (2) high-benefit areas, for example where DER could provide capacity and/or reliability benefits to the grid.[9] The Vote Solar Initiative characterized these two categories as: (1) "Low-Cost Integration"; and (2) "Benefits Maximization."[10] IREC agrees that these are useful terms to use. IREC also supports employing a methodology for identifying "optimal locations" that is transparent and as uniform as possible across the IOUs.[11] To this end, IREC suggests that the Commission should provide as much detail as possible in its identification of the criteria for "optimal locations."

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8 PG&E Comments at 5.

9 *See, e.g.*, *id.* at 3; SCE Comments at 6; SDG&E Comments at 7; CAISO Comments at 9-10; ORA Comments at 4-5; EDF Comments at 6-7; NRDC Comments at 3-4; CalSEIA Comments at 3-4; NRDC Comments at 3-4

10 Vote Solar Comments at 4-5.

11 *See* SolarCity Comments at 5-6 (emphasizing transparency); ORA Comments at 3-4 (emphasizing uniformity).

In their discussions of "optimal locations," several parties emphasized that the identification of such areas should in no way constrain consumers' ability to install DER.[12] Vote Solar further suggested a third category of "optimal locations" based on "Customer Responsiveness," that is, locations where customers would like to integrate DER.[13] IREC strongly agrees that consumers' ability to adopt DER and manage their energy usage should be a foundational element of the grid and the IOUs' management of it. As we indicated in the section above regarding forecasting, we believe that the IOUs will need to incorporate consumers' installation and use of DER in their modeling and forecasting to inform their grid planning going forward. While Section 769 explicitly ties the identification of "optimal locations" to changes in the IOUs' procurement strategies, and potentially other tariffs and policies, IREC firmly believes that it should never affect the fundamental right of consumers' to install DER and the IOUs' related obligation to allow their customers to do so. We urge the Commission to clearly recognize this principle in its guidance.

E. The Commission Should Require the IOUs to Identify New Procurement Programs and Other Tariffs, and/or Changes to Existing Programs and Tariffs, to Encourage DER in "Optimal Locations."

As the Sections 769(b)(2) and (3) make clear, another key component of the DRPs will be the modification or creation of procurement programs and other policies to facilitate the optimal location of DER. In opening comments, parties provided a range of views on the most effective mechanisms for encouraging DER at optimal locations, from locational adders within a market-based approach to streamlining interconnection, among others. While it is ultimately incumbent upon the utilities to propose the procurement and other policy modifications within

[12] *See* SolarCity Comments at 5-6, Vote Solar Comments at 4-5; AREM Comments at 3-4; BAC et al. Comments at 5-6 .

[13] Vote Solar Comments at 4-5.

the DRPs, the Commission should provide clear guidance to the utilities regarding what it expects the proposals to include. IREC offers some comments on two particular policies that the Commission should provide guidance on: procurement and interconnection.

Under the oversight of the Commission, the utilities have used a variety of different procurement programs for DER over the past several years. The utilities should draw from this experience in identifying what types of programs might work most effectively at directing DER toward both categories of optimal locations. IREC agrees with Vote Solar that the appropriate mechanisms likely vary by the type of "optimal location" that the utility is trying to incentivize.[14] The Commission should require the utilities to be practical about the time and costs associated with implementing different procurement vehicles and to recognize that the appropriate vehicle may depend on the purpose that the DER is intended to serve. For example, using a competitive bidding process may not work well for resources that need to be deployed quickly, but may be the best choice where there are a variety of different sites and factors at play.

In addition, the Commission should recognize that there are a variety of different ways to provide price signals to DER developers and that the procurement process may not be the only method of incentivizing optimally sited projects. For example, the current interconnection procedures naturally encourage installation of DER in "Low-Cost Integration" areas, because projects in those areas are less likely to trigger interconnection studies or upgrades. Beyond this basic feature of the existing interconnection procedures, there are possible modifications that could direct projects even more to these areas.

For example, the time and costs associated with the interconnection process can be as important as the price paid for power in some cases. IREC notes that our Integrated Distribution

[14] *Id.* at 5-7.

Planning (IDP) concept, which we described in our opening comments and during our September 17 presentation, could be used to encourage location of DER in both "Low-Cost Integration" and "Benefits Maximization" areas. In short, the utility could study its grid and identify both areas where there is additional capacity for DER as well as where DER would provide the "maximum value." Building upon this analysis, the utility could then offer a transparent and clear up-front allocation of the costs for any upgrades necessary in that area. It could also ratebase the cost or a portion of the cost of any upgrades that benefit all ratepayers. This would likely come in tandem with focused procurement mechanisms, such as location-specific RFOs and direct compensation for projects sited in "optimal locations."

Within this portion of their DRPs, IREC believes that the IOUs' proposals regarding the communication of the necessary information regarding optimal grid locations will be critical. The Commission recognized this, as well, in asking Question 9 in the OIR regarding data access. As with the procurement vehicles discussed above, IREC believes that effective data-sharing will be somewhat dependent on the type of "optimal location" the utility is trying to incentivize. In addition, we note that existing examples of data sharing mechanisms that could be improved or built upon include the Rule 21 pre-application reports and the IOUs' Renewable Auction Mechanism (RAM) preferred location maps. This data sharing will necessarily interact with the various types of price signals and other mechanisms the IOUs propose to employ.

IREC again emphasizes that we expect the development of the DRPs and the efforts that flow from them will be an iterative process, and that the integration of DER into IOU planning will improve over time. While it is important for the IOUs to propose good procurement and related tariffs and programs to start, IREC also believes that these ideas can be refined after the Commission has the opportunity to see them in practice. In the end, IREC strongly believes the

most critical component in the immediate term will be defining the categories of optimal locations, around which the IOUs will build their planning and procurement strategies.[15]

F. The Commission Should Require the DRPs to Incorporate Short-Term and Long-Term Components.

IREC notes that the statute does not address the timeframes for the DRPs in that it does not indicate whether the IOUs should focus on short-term actions, longer-term actions, or both. As indicated in our opening comments, IREC suggests that the Commission require the IOUs to identify both short-term actions (1-5 years) as well as their long-term planning visions (10-20 years) within their DRPs. The California Independent System Operator (CAISO) made a similar recommendation.[16] As discussed below in Section IV, most parties agree that the DRPs should be updated regularly. Therefore, the longer-term visions articulated by the IOUs will help the IOUs put their shorter-term actions within a broader context and allow for some continuity between updates.

III. The Commission Will Need to Develop a Consistent Benefit-Cost Framework for Evaluating Investments Put Forth by the IOUs in the DRPs, Which Will Be Approved in the IOUs' General Rate Cases, and Guide Procurement Program and Other Policy Modification and Development.

Section 769(b)(1) makes clear that understanding the benefits and costs of DER will be important to incentivizing their optimal location. In addition, IREC suggests that such a benefit-cost framework will be necessary for the IOUs to justify in future GRCs certain investments they may need to make to integrate DER in the manner envisioned by Section 769. These may include traditional system investments, such as distribution system upgrades, as well as investments in things like information management, modeling, and other types of software. As parties'

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[15] *See also* SCE Comments at 7 (stating that first the needs must be identified and then the IOU can rely on those to shape procurement and/or valuation processes).

[16] CAISO Comments at 2-9 (suggesting near-term objectives, focused on existing capabilities and immediate needs, and longer-term objectives, and the need for additional phases in this proceeding).

comments demonstrate, there is currently substantial variation in parties' perspectives regarding what benefits and costs should be considered with respect to DER,[17] and IREC expects similar issues would arise in discussing how they would be valued. IREC agrees with the Office of Ratepayer Advocates (ORA) and other parties that, at least at some high level, the framework for evaluating benefits and costs should be transparent and consistent.[18] While the application may vary depending on the context—for example in developing a procurement program versus approving an investment in a GRC—the fundamental understanding of the types and methodologies for valuing the benefits and costs under consideration should be as transparent and consistent as possible.

IREC suggests that the Commission could begin to consider these benefit-cost issues simultaneous with the IOUs' development of their DRPs, as we believe a framework will be necessary for the implementation of the DRPs in this docket and in other dockets (e.g., procurement program dockets, GRCs, etc.). For example, IREC notes that the evaluation of the benefits and costs of net energy metering (NEM) is under discussion in Rulemaking (R.) 14-07-002. The conclusions drawn in that docket could inform the Commissions discussions here and vice versa.

IV. The DRPs Should be Updated on a Regular Basis Going Forward.

Of those that addressed the issue, the majority of parties, including IREC, agreed that the DRPs should be updated on a regular basis going forward, with many parties suggesting a three-

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[17] *See, e.g.*, ORA Comments at 3-4, 5-6 (including grid benefits and environmental benefits); TURN Comments at 3-4 (specifically excluding societal benefits); SCE Comments at 10 (noting only avoided utility costs associated with grid); SDG&E Comments at 11 (focused on grid benefits); EDF Comments at 9-10 (referring to the NY Reforming the Energy Vision (REV) proceeding, which lists a wide range of benefits, including societal benefits);

[18] *See* ORA Comments at 3-4; *see also* TURN Comments at 1-2, 5-6 (noting need to develop clear valuation methodology for DER).

year cycle.[19] IREC continues to support this idea and urges the Commission to include this as part of its guidance order.

V. There Are Several Other Issues that the Commission May Need to Address to Effectuate the Full Incorporation of DER into Distribution System Planning.

In the OIR, in the *More than Smart* paper, and in parties' opening comments, a number of issues emerged that the Commission will likely need to address as it continues to pursue the objective of better integrating DER into distribution planning. While IREC suggests in these reply comments that the Commission focus its immediate attention on providing direction to the utilities to enable them to publish useful DRPs by the statutory deadline, we note here the issues that seemed to receive the most attention from parties in their comments. IREC believes that the Commission will need to keep these issues in mind as it moves forward in this proceeding and likely address them more directly at some point in the future. They include:

- The current cost-recovery paradigm and the IOUs' incentives within it to make utility-owned capital investments in order to maximize their profits.
- The ownership of DER, including both customer-sited DER as well as DER sited on the utility side of the meter.
- Access by third-party DER providers to customer energy usage data.

VI. Conclusion

As indicated at the outset, IREC has attempted to synthesize the wide-ranging opening comments submitted by parties into a more concrete list of priorities for the Commission to address in the near term. We look forward to reviewing Staff's guidance proposal when it is issued and otherwise continuing our participation in this docket.

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[19] *See, e.g.*, SCE Comments at 3; SDG&E Comments at 15; TURN Comments at 4; EDF Comments at 2-3; Clean Coalition Comments at 3-4.

Respectfully submitted at Oakland, California,

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